

# Abstract

A management method capable of making an accurate decision about a malfunction of the semiconductor manufacturing equipment comprises the steps of: sampling a plurality of data of at least one parameter under normal  
5 operating condition of the semiconductor manufacturing equipment (11); generating a Mahalanobis space A from a group of sampled data; calculating a Mahalanobis distance  $D^2$  from measured values of the parameter under ordinary operating condition of the semiconductor manufacturing equipment (11); and deciding that a malfunction occurred in the semiconductor  
10 manufacturing equipment (11) when the value of the Mahalanobis distance exceeds a predetermined value.